

# Operating boilers safely

*Here's what you need to know to keep your boilers and pressure vessels operating safely*

## Inspection = public safety

The safe design, installation, operation and maintenance of boilers and unfired pressure vessels are essential to public safety. Leaking, corroded or ruptured units can cause:

- Explosions
- Fires
- Poisonings
- Suffocations

Periodic inspections by the Department of Labor & Industries (L&I) are required by law and are the surest way to avoid problems. Boiler or vessel owners must pay inspection fees used to fund this public-safety program.

## Inspection = economic benefits

- Skilled inspectors use state-of-the-art technology, such as ultrasound, thermo sensors and carbon monoxide detectors, to identify maintenance needs and potential problems before they become major repair or replacement costs.
- An efficiently operating boiler saves money on energy costs.

## Inspection fees

Fees vary, depending on the type and size of unit. Other certificate and permit fees may also apply. Ask your L&I boiler inspector for the current fee schedule, or visit [www.Boilers.Lni.wa.gov](http://www.Boilers.Lni.wa.gov) (click on Permits & Inspections, and then Billing & Fees), or call the L&I Boiler Program at 360-902-6400.

## Inspection requirements

Most boilers and pressure vessels in commercial facilities must be inspected, including:

### Boilers:

- High-pressure steam operating at a pressure exceeding 15 PSI
- Low-pressure steam operating at a pressure 15 PSI or below
- Hot-water-heating boilers and hot-water-supply boilers (with burner input exceeding 200,000 BTU/hr.)

### Unfired pressure vessels of five cubic feet (37.5 gallons) or larger and operating at a pressure exceeding 15 PSI, including:

- Air receivers
- Expansion tanks
- Air separators
- Refrigeration vessels
- Heat exchangers
- Other types of storage and pressurized tanks

*(Exception: vessels in a place of public assembly must be inspected if they are 1.5 cubic feet or larger.)*

**Required inspections could save you trouble, money and maybe even lives**

## Inspection requirements (continued)

### **Domestic hot-water heaters when located in a place of public assembly, with:**

- Maximum heat input of 200,000 BTU
- Water capacity of 11.25 to 120 gallons
- Maximum operating pressure of 160 PSI

*(Places of public assembly are defined as facilities used for 50 or more people for education, instruction, worship, entertainment, amusement, drinking, dining or awaiting transportation. They also include child-care centers with 13 or more children, government-owned or operated buildings, public or private hospitals, and adult care, nursing and boarding homes.)*

## Inspection frequency

- Steam boilers operating over 15 PSI must be inspected annually.
- All other low-pressure boilers and pressure vessels must be inspected every two years.


## Installation requirements

Owners or installers must obtain boiler/pressure vessel installation or re-installation permits prior to installation and placing units in service. Permit forms are available online at **[www.Boilers.Lni.wa.gov](http://www.Boilers.Lni.wa.gov)**.

## L&I Boiler Program

- **Performs safety inspections and issues operating permits** for more than 100,000 boilers and unfired pressure vessels throughout the state.
- **Administers National Board and state examinations** for commissioned inspectors.
- **Investigates accidents** involving boilers or pressure vessels.
- **Inspects, audits and reviews boiler and vessel manufacturers** for conformance with national construction standards.

### For more information

 **On the Web:** L&I Boiler Program  
**[www.Boilers.Lni.wa.gov](http://www.Boilers.Lni.wa.gov)**

**Phone: 1-360-902-6400**

*Other formats for persons with disabilities are available on request. Call 1-800-547-8367. TDD users, call 360-902-5797. L&I is an equal opportunity employer.*